

LONG ISLAND BOTANICAL SOCIETY

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Invasive Plants at Home and Away: How Mile-A-Minute Plays the Game

Laura Hyatt

Have you seen this plant? *Polygonum perfoliatum* L. (family *Polygonaceae*, section *Echinocaulon*), or Mile-a-minute weed, has recently begun making appearances throughout Long Island, having been found near Nassau County's Tiffany Creek Preserve as well as the Planting Fields Arboretum in Nassau County. Scattered reports are coming in from Suffolk County as well.

Originally introduced to Pennsylvania in the early 1930's, Mile-a-minute weed is an annual vine that climbs over its neighbors with sharp, prickly spines on the stem and petioles. It has conspicuously triangular leaves and smaller, circular leaves that surround the stem. A bright purple fruit forms around the seeds at the tips of branches.

Mile-a-minute weed is native to Asia, ranging from Japan in the north to the Philippines in the South, and west to India. In the native range, it is mainly limited to wetter habitats, found on the banks of rivers, lakes and smaller tributaries.

Mile-a-minute weed has been targeted as a noxious weed in New York, New Jersey, Pennsylvania, Ohio, Virginia, Delaware, Maryland, West Virginia and is spreading west. Plants are known to grow as much as 10 meters in a single year and grow in patches as dense as 300 stems per m². While limited to wetter habitats in its native range, in the US, Mile-a-minute weed infests not only stream banks but also roadsides, forest disturbances, old fields and tree plantations. It thrives in high light areas and generates dense shade, adversely affecting both native and exotic species.

Exotic invasive species are commonly thought to have disproportionate impacts on native communities because they have escaped from the pest insects that would regulate population growth in their home turf. There are some successful biological control programs for exotic weeds that capitalize on this phenomenon, importing species-specific pest insects from the native range to exert a measure of control in their new habitat. For example, a number of South American flea beetles have been used to control explosive growth of Alligatorweed in northeastern Florida. A variety of weevils and beetles have been explored to regulate the spread of Purple Loosestrife (*Lythrum salicaria*) throughout the eastern United States, as well. (Continued on page 28)

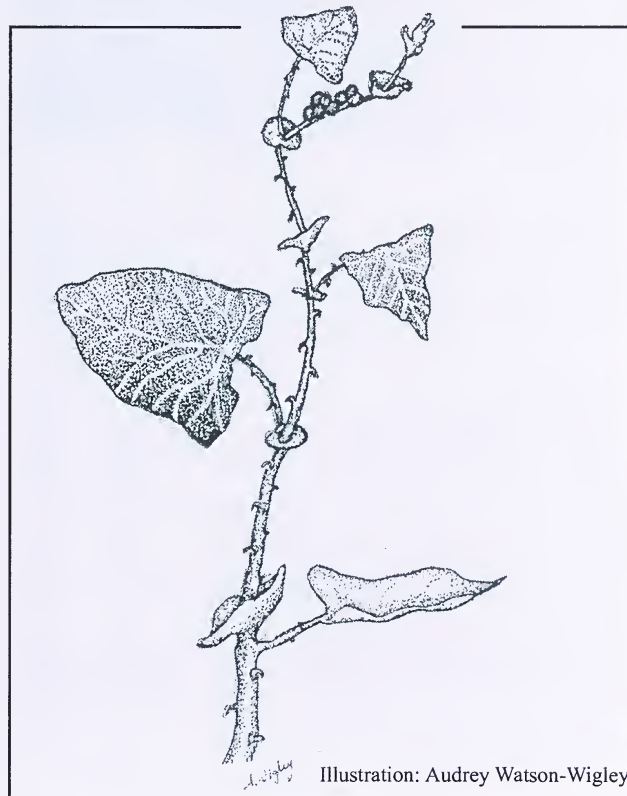


Illustration: Audrey Watson-Wigley

Mile-A-Minute (*Polygonum perfoliatum*)

Long Island Botanical Society

Founded: 1986 Incorporated: 1989

The Long Island Botanical Society is dedicated to the promotion of field botany and a greater understanding of the plants that grow wild on Long Island, New York.

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Society News

The Range in the Forest: Town, county and state lands are often leased to entities for community endeavors. A portion of the core area of the Pine Barrens was leased by the Town of Brookhaven to Frank Vigliarolo for a shooting range. He proceeded to clear about twenty acres of state protected land. The state Pine Barrens Commission voted to write a letter to Attorney General Eliot Spitzer for an investigation. While some Town of Brookhaven officials respond that the activities fell under an exception which allows construction for recreation, the Town of Brookhaven is asking Vigliarolo to pay \$25,000 for damages and has filed a lawsuit against the Long Island Shooting Range. Members of the Pine Barrens Commission call this penalty little more than a slap on the wrist.

Bursting Balloons: Celebrations and promotional attractions are often concluded with mass releases of helium-filled balloons. Balloons may be pretty to watch as they rise into the air, but not so pretty after they fall to litter the landscape and drift in our offshore waters. Worse yet, sea animals, particularly the sea turtles, identify wafting balloons as a marine delicacy: jellyfish. Legislator Nowick has introduced a resolution to limit the mass release of balloons in Suffolk County. A "Balloon Council" is pleading hardship. They contend that the balloons cause no mortality in sea life and that businesses on Long Island will suffer as a result. This has led to a "compromise" bill. To support a ban on indiscriminate releases of balloons, contact your local county legislator.

Sandhills Suit: On May 1, a New York State appellate court denied the Town of Riverhead and the golf course consortium (Talmage et. al.) permission to appeal a decision that the court had made earlier in January. The earlier January decision overturned the town's approval to bulldoze the Grandifolia Sandhills because the state's SEQRA process was not properly followed. Talmage et al. had proceeded to topple the rare habitats in the Grandifolia Sandhills and began constructing a golf course and recreational area. Now that the habitat has been damaged, there remains the choice of restoring the ecosystem, pursuing further legal action or dealmaking.

Plants in the News

Moldy Minds: The journal *Nature* reported on the "thinking" trait of the slime mold *Phsarum polycephalum*. Apparently, it was able to determine the shortest way through a labyrinth to find food. The slime mold was allowed to spread until it filled a maze. Fragments of oats were then placed at key positions. Sensing the food, the surplus parts of the slime mold withered away until only a single tubular structure was left spanning the shortest of four possible routes. "This remarkable process of cellular computation implies that cellular materials can show a primitive intelligence," said the team, which is led by Toshiyuki Nakagaki of the Bio-Mimetic control research center in Nagaya, Japan. While it was heralded as a sign of cognition, the eight hours of time it took left it unqualified for a game of Jeopardy.

Plant Sightings

Water Hyacinth: Zu Proly reported that the Water Hyacinth (*Eichornia crassipes*) that came in last fall at Scudder's Pond in Sea Cliff does not appear to have survived the winter. As of this April, it was missing.



Gerald D. Carr

Water Hyacinth: (*Eichornia crassipes*)

Editor's Note: Water Hyacinth is a free-floating perennial herb. The plants grow about 3 feet tall as they float on the water's surface, with stems intertwining to form dense mats.

In the Amazon the plant is held in check by natural enemies such as insects and microbes. These organisms stress the plants, controlling the mat's expansion. But Water Hyacinth has escaped to friendlier waters, especially since the 1800s. Often, visitors, drawn by its lush leaves and blue-to-lavender flowers, have taken it home as an ornamental.

Out of its enemies' reach, Water Hyacinth has become an aggressive floating aquatic weed in many tropical and subtropical parts of the Americas, Asia, Australia, and Africa. In Africa it infests every major river and nearly every major freshwater lake. In the United States, it flourishes in hundreds of bodies of water in Hawaii and California and throughout the South from Texas to the Carolinas.

***Spergula morisonii*:** Skip Blanchard reported finding *Spergula morisonii* in East Moriches on April 8th. This is apparently a first occurrence for Long Island, although it has been seen in western New York State. Since there were several hundred plants there, Skip sent back and collected it on April 15. It was in a cut and fill area of the Pine Barrens and is an annual.



Spergula morisonii

Grape Fern: John Potente reported he has been seeing Grape Ferns (*Botrychiums*) appear on his property in Hauppauge after removing invasive plants. A fourth was found in late winter in an open grassy field among Purple Top (*Triodia flava*). The fifth one, the size of a thumbnail, was observed in early May in a bed of moss. It is suspected that it is a young *Botrychium dissectum*. Steve Clemants noted that *Botrychiums* are prone to have different species growing side by side.

Wood Aster: On May 15, Elsa L'Hommedieu noted that truckloads of flats of White Wood Aster (*Aster divaricatus*) and ferns were being planted at the Avalon Preserve in Stony Brook.

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However, very little ecological data is available to test the premise that exotics behave invasively because they have escaped from their own native pests. Other phenomena, such as soil fertility, pollinator availability, and cultural practices may also play a role in preventing such species from behaving invasively in their native range. Ecological studies of exotic invaders in their native ranges, where they are not invasive, are nearly absent from the scientific literature. While biological control is nearly always preferred to chemical control, the risks and benefits of such approaches must be examined. Ecological studies can tell us whether native pests are, indeed, controlling the plant populations within the native range. They can also reveal whether the populations in the new range are likely to respond to pest introductions, and whether those pests are likely to switch to new hosts and decimate populations of native species in the new range as well.

From 1998-2000 I had a unique opportunity to travel to Japan, the northern part of the native range of Mile-a-minute weed. I was funded by a fellowship from the USDA to investigate



Mile-A-Minute: Note the unusual triangular leaves and the jagged spines along the stem.

population regulation of this species in its native range where it is not invasive. This part of the work was done in collaboration with Dr. Sachiko Araki at the University of Tsukuba. These studies were supplemented by parallel population studies I conducted in the exotic, invasive range, centered in Pennsylvania and Delaware. Together, these projects made it possible for me to compare population regulation in both the native and new ranges and to assess potential control mechanisms.

In Japan, populations are regularly flooded by the bodies of water they abut. Floods bury and kill most of the young plants. The few plants that do survive produce many seeds. Very little pest herbivory takes place and the impact of flooding vastly overwhelms any small effects of pests in the native habitat. Even if flooding removes all adults, this species maintains a pool of seeds in the soil that are able to germinate and grow in the following years (a seed bank). Thus the species can colonize apparently empty habitats. The individual populations that I observed were projected to either grow or decline rapidly, a trend associated with population age. Older populations were in decline, while younger, newer populations were growing. Removal of flooding would lead to much larger populations of this species and could shift its ecological role from that of an innocuous member of the community to a rapidly growing native invader.

In the United States, because this species has escaped from its regularly flooded habitat, more young plants survive to reproduce and a sizeable seed bank is rapidly established. By invading agricultural areas, individual plants can capitalize on high soil fertility, growing very large and setting many seeds. In such a setting, populations get very large very quickly, and even if mowing removes most of the above ground plants, the existing seed bank can reestablish populations for many years. As in the native range, older populations were in decline while newer populations were projected to grow quickly.

From these studies, it is clear that biological control is not likely to be a very profitable approach to removing infestations of Mile-a-minute weed on a broad scale. Long-term, regular

flooding does most of the population regulation in the native range, a phenomenon that is difficult if not impossible to replicate in natural habitats here. To protect Long Island's natural areas from this species' potentially devastating effects, growing plants should be removed as soon as they are noticed (wear gloves - the spines are serious!) and the area should be revisited frequently to make sure that no other plants emerge. The Long Island Weed Management Area program associated with The Nature Conservancy is beginning to establish an invasives clearinghouse to receive reports of this and other exotic species in order to monitor and remove invasive plants before they become troublesome. If you are interested in joining a new Weed Watcher's group to help look for (and eradicate) Mile-a-minute vine and other new invasive plants, contact Stacey Goldyn at sgoldyn@tnc.org or 631-367-3384 ext.131. The Weed Watcher's group is being organized by the Long Island Weed Management Area, a cooperative effort by The Nature Conservancy, County, State and Federal agencies, educational institutions and private individuals.



Mile-A-Minute: Note the saucer-shaped sheaths at the base of the petioles.

Editor's note: This article was submitted for publication in LIBS on May 31, 2002. The author was a postdoctoral research associate at SUNY Stony Brook from 1998 to 2002. She is currently an assistant professor of biology at Rider University in Lawrenceville, NJ.

Remembering Bob Laskowski: By His Proteges and Fieldmates

John E. Potente

Early morning, the 20th of May, 2002, we climbed into the back of the limousine, idled in a parking lot in Bohemia, Long Island, and settled in for a quiet ride to Wurtsboro, a small town upstate New York. As we gazed at the hearse leading us we broke our somber stares and reflected on one of Long Island's departed naturalists.

While Bob Laskowski spent most of his life on Long Island, his wishes would be followed and he would be laid next to his sister in a small cemetery overlooking the Bashakill. A friend of his sister from the area said, "Bob was loved up here and would always be found strolling down to the marshes of Bashakill.

Bob was from an era of naturalists that saw broad stretches of open space on Long Island: long views of the Hempstead Plains, endless vistas of farm fields full of vegetables, potatoes, and fruit orchards, deep forests and idyllic pastures of grazing cows. When I would go for walks or rides with Bob, he would always pause to tell me of a farmer that once plowed a field where a mall now stands or of a narrow dirt road for horses that is now a six-lane highway. He not only knew what was, he lived it!

The others beside me on the long seats of the limo knew Bob a lot longer than I and told me of his earlier years. Larry Merriman and Millie Krawcheck were only too happy to begin.

Bob was born in 1915. His early years were spent in the Bronx near the Bronx Zoo. He continued his formal education at Farmingdale Agricultural College receiving an Associates degree.

Bob was inducted into the Army Air Corps in 1942. Initially, he was sent to California and was stationed in a remote desert outpost. It was a detail that no one else could tolerate and a place where no one else wanted to be. When it came time for Bob to be relieved, he reported that he wanted to stay. An army psychologist was sent in to evaluate Bob, for his superiors feared he may have gone crazy. In reality, Bob had been having a great time birdwatching and cactus-watching in the serene undisturbed desert. (Continued on page 32)



Bob Laskowski and his sister, Helen, in November, 1943.



"At home" in his place of employment, Bob prompts a young gardener at the Agway store in Central Islip.



Bob in the field in Assam, India during the month of June, 1973.



Bob takes the express to view the sites in India, 1973.



In the early 1950's, Millie Krawcheck stepped into Agway to buy chicken feed. When Bob found out she was from a farming family, he became quite interested. They remained close ever since.



John E. Potente



One of Bob's favorite sites was the field of Birdfoot Violets (*Viola pedata*) at MacArthur airport. (Bob in upper left of photo.)

Bob shows some companion botanists the FAA site in Sayville.



Bob beams amid the robust wildflowers of his butterfly garden.

(Continued from page 29)

Bob was then sent to Europe in the 9th Air Force arriving a week after D-Day. He would spend the next twenty months there, providing ground support, helping maintain B-26 Marauder and B-51 Mustang medium-range bombers. Wherever the Allied troops settled in Germany, he would start a garden. Not only was he making provisions, but he simply enjoyed growing plants.

Jack Finkenberg, sitting beside me, added that he became good friends with Bob in the late 1970's. Bob would summon him, "Get in the car, Jack. You're driving." They would then tend to Bob's feeder circuit: a collection of forty bird feeders at assorted locations throughout Suffolk County. Some were behind factories, others in vacant lots, and some were simply roadside, like quick drive-throughs for the birds. Jack would lean back and watch as pheasant and chickadees would run to Bob and eat out of his hand when they saw him coming.

Jack recalled how Bob was forever collecting grass seed and twigs of one sort or another. He would save them in his sacks and cast them in other areas, elsewhere. [I, myself, have seen the fruition of Bob's seed sowing at the Edgewood Preserve: a collection of Big Bluestem (*Andropogon gerardii*), Indian Grass (*Sorghastrum nutans*), and Little Bluestem (*Schizachyrium scoparius*). He would tend to these little hideaways that were like minipreserves].

Jack went on to say that, "You would never get away from the guy without him giving you an assignment, whether it was writing an article, writing a letter to the editor, contacting a government agency, or testifying. Bob had his fingers on a lot of good projects and knew a lot of key people."

All very true. Bob suggested I look into preserving the Hauppauge Springs. And just to be sure I agreed, he'd routinely send information and give me telephone follow-ups with names and numbers of people I should contact.

Bob Laskowski knew of the federally endangered Sandplain Gerardia (*Agalinis acuta*) at the Sayville Grasslands and was a leading proponent in getting the FAA to protect the site. I visited the site, often, with him. While Bob knew of many quiet corners of Long Island, the Sayville

Grasslands were one of his major successes. I enjoyed watching him enjoy walking the large serene meadow there, filled with living bouquets of asters and *Agalinis*. He was truly a man who knew and cared for the earth.

Peter R. Warny

I have been hiking with Bob Laskowski since the 1970's. I remember hiking with him at Hoyt Farm Park after he recently returned from a trip to Africa. He tried teaching me words in Swahili, but the only thing I remember is that "simba" means lion. On another walk at Scully Audubon Sanctuary with Carl Safina, as we walked through the plant genus *Galium*, Bob mentioned that he thought the genus also grew in the mountains in Africa and that mountain gorillas eat it. So, I tried eating some.

My young son, Peter, was with us. Peter and I called him "Big Bob" because he was a big man. When I showed "Big Bob" my new 1978 Ford family minivan his only comment was that he liked it because it was American-made.

When I first met Bob I was impressed that he was a strong, rugged, tough outdoorsman who never complained about bugs, poison ivy, ticks or other parasites. As big, strong and tough as Bob appeared, he impressed me most by being so tender and gentle with the small delicate plants and animals that he loved and respected, including grasses, sedges, spring peepers, toads and even worms.

Bob loved nature and he loved to talk about nature. Like me, he sometimes talked too much. But everything Bob ever said was the sincere, honest truth. I will always enjoy and respect the times I spent in the field with Bob Laskowski.

Barbara H. Conolly

I can see Bob Laskowski on the LIBS trip to Costa Rica in 1993, keeping up with all of us and not missing a thing. On one long muddy hill, I remember looking back down at him, coming slowly along, and admiring his pluck for making such a huge effort.

My happiest memory of him was when he was showing his butterfly garden at the Islip Nature Preserve to Betty Lotowycz and me a couple of years ago. As we fought our way through the chest-

high profusion of wildflowers, all teeming with butterflies and bees, I remarked on this fantastic profusion. “Bob, did you use any fertilizer in this plot?” Sheepishly, he looked down and answered, “Well, I guess I might have overdone it a little this year. I used 100 lbs. of 10-10-10.” Since the garden is about 40' by 50' he might have overdone it a little!

Bob was also instrumental in getting the FAA property and the Kings Park woodland saved. Can anyone forget how excited he was when there was a great bloom of Birdfoot Violet on the edge of MacArthur Airport one spring! And the time he led us all to a street in Islip where he had discovered a half-block of Kudzu Vine thriving!

On our field trip to Pelham Bay Park in June of 1995, he was absolutely thrilled to find Gama-grass (*Tripsacum dactyloides*) growing at the edge of the marsh. I believe it is an antecedent to an edible grain (these grasses were his particular expertise) and it had exposed rhizomes that looked like tan and black striped grubs!

Bob kept a sharp eye on everything and we'll all miss him deeply.



Bob Laskowski at Pelham Bay on June 25, 1995 after finding *Tripsicum*

Christopher Mangels

Bob was truly a unique person, and to those who knew him at all, a man of great character. To me, the greatness of his character came from the range of personal qualities he embodied, which included striking contrasts. Although he was already of post-retirement age when we first met, roughly eighteen years ago, Bob had probably always been, I suspect, much the same way all of his life.

Bob was a notoriously free thinker who nevertheless put great value on cooperation. He lived humbly, yet he was often more than generous, and had an unfailing good nature. Bob could sometimes come across as being gruff, especially to strangers, yet he was always gracious and approachable. He was a born skeptic, who could always be counted on for critical dissent, yet he always managed to maintain a positive attitude. He was a decorated war veteran who possessed a truly gentle soul.

Bob was deeply connected to a past time—he often recounted stories of a pre-War, pre-suburban Long Island, notably the Hempstead Plains, and of having met and conversed with the likes of Nathaniel Britton, Stanley Cain, Roy Latham, and Robert Cushman Murphy. However, Bob never hesitated to accept the present, or to look towards the future. He had traveled the world widely, and was clearly influenced by his experiences, yet he developed deep roots in his home community of greater Islip, and over decades dedicated immeasurable amounts of time to active roles in numerous local organizations, most notably Great South Bay Audubon Society and the Long Island Botanical Society. In this sense, he was an embodiment of the “think globally, act locally” ethic.

Bob had innumerable friends, and struck up friendships with great ease. He was always eager to play the role of mentor and patron, as he did with several generations of budding naturalists. My relationship with Bob clearly fit into this category. Our friendship was based not only on a wide range of mutual interests—foremost a love of nature—but also on a shared sense of place and time. We thoroughly enjoyed being modern-day, roving naturalists, explorers and chroniclers of what still existed of Long Island's natural world. The time and experience he shared was for me his greatest gift.

Potato Culls

Thomas Allen Stock

After purchasing a fifty pound bag of salad potatoes, otherwise known as culls, I ransacked the bag to find that some of the specimens had fantastic shapes. I ran to the dictionary to look up culls. I knew the word as applied to lobsters, but not potatoes. It said, "To collect, gather, pluck. Something picked out and put aside as inferior."

Inferior? Indeed not! They are just the opposite. They should sell for more than a regular bag of potatoes, not less. They have evolved their forms in the soil and have been selected out to be labelled "salad potatoes", too difficult to peel, because of all the bulbous protuberances and folded shapes. The real potato culls are those scarred and cut by the harvesting machines. As soon as one of the blades cuts into a potato, it is stigmatized as a cull. The ugly scar must be cut away and this undoubtedly leads to more waste.

These potato culls are works of art. They flow like bubble gum projections from chubby adolescent cheeks. They surround and at the same time pinch off in tuberous behavior. They transcend ordinary potatoes, becoming starchy, skinned earth sculptures. Their skin is like the hands of some of the migrant workers who must have separated them from the others and chucked them into their brown sac. These bubbles and projections have the same nutrition as their egg-shaped relatives. Clumsy peeling techniques will probably mean that much of their pith will be cut off. They must be scalded to loosen their skins before they find their end in a pile of salad. They deserve a better end. Perhaps to be split apart to act a seed for next year's crop. I, an artist at heart, took the most unusual ones, sat them together and took their photograph.



Dave Fisher/Newsday

Field Trips

July 20, 2002 @ 10:00 AM (Saturday)

Robert Moses State Park, Suffolk Co., NY

Hike Leaders: Gerry Moore, Angela Steward

The Long Island Botanical Society will join with the Torrey Botanical Society for a field trip to Democrat Point at Robert Moses State Park. The trip will be guided by Gerry Moore, research taxonomist at the Brooklyn Botanic Garden and Angela Steward of the Brooklyn Botanic Garden. The walk will course through the dunes to Democrat Point at the end of the island. The Atlantic dune habitats host many interesting plants, including Beach Pea (*Lathyrus japonicus* var. *maritimus*), Dune Grass Heath (*Hudsonia tomentosa*) and Groundsel (*Baccharis halimifolia*). Scattered interdunal swales are sites of rare plants including Ladies' Tresses (*Spiranthes vernalis*). We may also see the rare sea-beach Amaranth (*Amaranthus pumilis*) and Sea-Beach Knotweed (*Polygonum glaucum*). Space is limited for this trip and those wishing to attend must contact the leaders in advance. You may call: 718-623-7332 (Gerry Moore) or 718-623-7339 (Angela Steward). You may also email them at gerrymoore@bbg.org or angelasteward@bbg.org

Bring lunch, plenty of water and sun block. Wear shoes appropriate for walking over hot sand.

Directions: From NYC, take Southern State Parkway to Robert Moses Causeway to exit #40. Follow signs to parking field #2 on westernmost point of island. Meet at parking lot #3.

August 17, 2002 @ 10:00 AM (Saturday)

Quogue Wildlife Refuge, Quogue, NY

Hike Leader: Jenny Ulsheimer

Join Jenny Ulsheimer to see the mystical habitats and bogs of this wetland refuge. If lucky, we may get to see White-fringed Orchids in bloom.

Directions: Take Sunrise Highway (Route 27) to exit 64. Take Route 104 south and a right fork at Quogue-Riverhead Road. Make a right on Old Country Road just before the railroad trestle. The entrance is just under a mile on the right before crossing the railroad tracks.

For further info you may call: 631-653-4771.

Sept. 15, 2002 @ 10:00 AM (Sunday)

Caumsett State Historic Park

Hike Leader: Jenny Ulsheimer

Caumsett has a bounty of undeveloped habitat including woodland, meadows, rocky shoreline and salt marsh.

Directions: Route 25A to Route 110 to Lloyd Harbor to West Neck Road. Park entrance is on left.

Programs

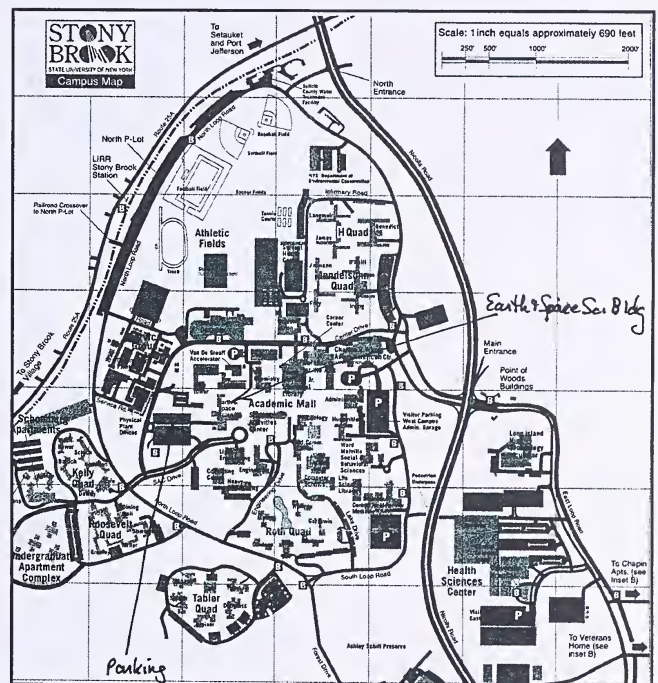
September 10, 2002* Tuesday, 7:30 PM

Karen Chytalo: "Tidal Wetlands Loss in Nassau and Suffolk Counties" will address vegetation stresses on Long Island shorelines. Karen is Section Head of Marine Habitat Protection Bureau of Marine Resources with the NYS DEC. Location: Museum of Long Island Natural Sciences, Earth and Space Science Building, Gil Hansen Room (Room 123), SUNY at Stony Brook,

*Refreshments and informal talk begin at 7:30.

Formal meeting starts at 8:00 PM.

Directions to Stony Brook: 631-354-6506



New Members

Jayce Hyon, New York, NY

Christine Fischei, Rocky Point, NY

David Laby, Setauket, NY

Chris Thompson, Southampton, NY

**Long Island Botanical Society
Muttontown Preserve
Muttontown Lane
East Norwich, New York 11732**

